

MEMORANDUM FOR: Deputy Director of Central Intelligence
Executive Director

For your information, here is the recently released Senate Subcommittee report on technology transfer that has been the subject of several news items recently. Some of the recommendations have far reaching implications for intelligence.

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UNITED STATES SENATE

Permanent Subcommittee on Investigations

William V. Roth Jr., Chairman
Warren B. Rudman, Vice Chairman
Sam Nunn, Ranking Minority Member

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**IMPROVED INTELLIGENCE EFFORT CAN BLUNT SOVIET
DRIVE TO ACQUIRE U. S. TECHNOLOGY**

A Senate Subcommittee is calling on the U. S. intelligence community to assume a more aggressive role in blunting the Soviet Union's "all-out campaign" to acquire high technology from the United States and its major trading partners.

In a report to be filed in the Senate on Monday, November 15, the Permanent Subcommittee on Investigations said that "through improved intelligence, the government must determine what it is that the Soviets need and want and then model its response accordingly. In other words, we must diagnose precisely the nature of current Soviet needs for our technology."

Senator Sam Nunn (D-Ga.), Ranking Minority Member of the Subcommittee, said, "The Soviets view American technology as their technology, to be utilized whenever needed. By relying on American technical knowhow, they save time, resources and tremendous amounts of money for research and development."

"Moreover, the Soviets have finely tuned their efforts to target those areas of American technology most suited to their precise needs," said Nunn. "By contrast, American efforts to stem the transfer of technology have been largely unfocused and overly broad in scope. By attempting to control everything, we have made it nearly impossible to adequately control anything. Through improved intelligence efforts by our defense and intelligence agencies, we must determine precisely what it is that the Soviets want and restructure our controls accordingly. Coupled with an intensified program to educate our high technology business community on the gravity of the problem, we can substantially improve our ability to halt the technology drain."

Senator William V. Roth, Jr. (R-Del.), the Chairman of the Subcommittee, said, "The United States can no longer tolerate the Soviet theft -- and that's what it is -- of these highly sensitive products of American ingenuity. We must stop it, and stop it now, because our national security is threatened."

The Subcommittee termed the Soviets' campaign to obtain American microelectronic, laser, radar and precision manufacturing technologies as being massive, well planned, well managed and designed to make the Soviet Union militarily pre-eminent. The technology acquisition effort, the report says, is "a national program approved at the highest party and governmental levels."

The report says the Soviets are increasingly adept at obtaining American technical knowhow, while all too often the U. S. response has been inadequate to the challenge.

Based on public hearings held on May 4, 5, 6, 11 and 12, 1982, the report followed an 18-month inquiry by the Subcommittee's Minority staff into the government's ability to enforce export controls, particularly as they relate to illegal diversions of U. S. technology to the Soviet Union and Soviet Bloc.

A major finding of the Subcommittee Minority staff was that the Department of Commerce, which has principal responsibility for enforcing export control laws, is institutionally incapable of carrying out that duty effectively. They recommended the enforcement function should be abolished in the Commerce Department and taken over by the U. S. Customs Service. Senator Nunn endorsed that recommendation and said he is considering legislation to remove all export control enforcement responsibility from the Commerce Department and give it to Customs.

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The Findings, Conclusions and Recommendations of the Subcommittee report follow:

VII. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This report is based on the subcommittee's investigation and hearings into the effectiveness of the executive branch in enforcing export controls, particularly with reference to the transfer of technology to the Soviet Union and Soviet Bloc. The subcommittee has special interest in evaluating the government's response to the all-out campaign of the Soviet Union to acquire Western technology.

The dimensions of the Soviets' technology acquisition drive were outlined in the CIA report which was prepared to respond to this subcommittee's investigation. The CIA report described the Soviet Union's campaign to acquire Western technology as being massive, well planned and well managed—a national program approved at the highest party and governmental levels. The CIA report concluded:

Stopping the Soviets' extensive acquisition of military-related Western technology—in ways that are both effective and appropriate in our open society—is one of the most complex and urgent issues facing the Free World today.

The subcommittee shares with the CIA that concern. Not only must the Soviets' extensive acquisition effort be blunted, effective action is called for promptly. Unfortunately, priceless U.S. technology already has found its way to Moscow. Advanced American microelectronics, laser, radar and precision manufacturing technologies have been obtained by the Soviets and have enabled them to make giant strides in military strength at a minimum of risk, investment and resources.

If the Soviet Union were applying Western technology to the objective of increasing its capacity to produce more consumer products, the threat from their acquisition drive would be less serious. However, the evidence is strong that virtually all the technology they obtain from the West is applied to the Soviet military industry. The military buildup in the Soviet Union is going forward at a rapid pace. Consumer needs take a back seat to armaments. As one former Soviet engineer told the subcommittee, the Soviet industrial capacity is so overburdened with military production that the Soviets could not make a civilian or commercial application of certain high technology products even if they wanted to. It is hoped—for the sake of the Soviet people, for the sake of world peace—that the Soviet military buildup will subside. In the meantime, however, there is no reason why the West should contribute, by weak export controls, to the Soviet Union's technological needs.

The subcommittee makes the following findings and recommendations as a result of the investigation and hearings:

INTELLIGENCE AND TECHNICAL EVALUATION . . .

(1) The Soviets dedicate substantial resources to highly focused attempts to secure American technology. They are becoming increasingly adept in that effort. By contrast, the American response often has been

unorganized. A restructuring of American efforts to halt undesired technology transfer is called for. Through improved intelligence, the government must determine what it is that the Soviets want and then model its response accordingly. In other words, we must diagnose precisely the nature of current Soviet needs for our technology.

Frequently, the assertion was made at the hearings that the U.S. may be trying to control too many commodities—and, because it tries to do too much, the government ends up controlling too few goods. Through improved intelligence, the government can learn more precisely what the Soviets want and need. The government could reduce the number of controlled items—and could do a better job of preventing the Soviets from obtaining the commodities they desire most. Improved intelligence, coupled with an improved system for conveying that intelligence in a sanitized form to law enforcement, would constitute a stronger export control mechanism.

(2) Congress should consider establishing a center for technical expertise to be located at a National Laboratory whose purpose would be (1) to provide technical evaluation on export cases too complex for routine licensing applications; and (2) to conduct research into technical questions related to export matters. The center, which would be staffed by about 20 experts from a variety of scientific disciplines in the national security field, would provide technical guidance to licensing officers and to Federal agencies involved in export controls. The existence of the center, and the high-level technical assistance it would provide other agencies, would enable other components of government involved in export control cases the opportunity to concentrate their evaluation efforts on policy and policy-related matters and limit the amount of time they would have to devote to strict baseline technical assessment.

Conversely, such a center would enable experts to make technical evaluations free from the influence of policymakers. Dr. Lara Baker, a computer scientist with experience in the intelligence field, testified about the need for such a center and estimated that the cost of the facility would be about \$5 million a year, an amount, he said, which represents a very small fraction of the value of the technology currently at risk.

(3) The Export Administration Act of 1979 gives primary responsibility to the Commerce Department to determine the foreign availability of dual-use technology. This is an important responsibility. It is essential that licensing officers know what equipment can be purchased overseas. In many cases, it is unfair to preclude American industry from exporting equipment which already is being sold abroad. The Commerce Department should review its own capabilities and resources in this regard. If the job is found to be being handled in an unsatisfactory manner, the Department should make every effort to take appropriate corrective action. A Defense Department official testified that DOD already is doing considerable work in connection with foreign availability. Because of the national security implications of the foreign availability issue, the Commerce Department should operate in close harmony with DOD in determining what is being sold overseas. Testimony at the hearings indicated that many businessmen resent export controls because they believe much of the equipment on the controlled list is available from foreign sources. The subcommittee

believes that cooperation and assistance from the private sector are necessary if export controls are to be enforced more effectively. By the same token, cooperation is a two-way street. The business community has a right to expect that, wherever appropriate, they should be entitled to compete on equal terms with foreign businesses. Export control decisions should be made with a view to allowing as much free trade as possible. Arbitrary or inconsistent lists of controlled goods are a severe disincentive to exporters seeking to establish markets overseas while simultaneously remaining reliable suppliers at home. Government should use the foreign availability issue as an opportunity to demonstrate that it is taking steps to improve its own management of the technology transfer problem.

(4) The Defense Department and the intelligence agencies should conduct a study to determine the technology lost to the Soviet Union and Soviet Bloc. A good start in that direction was the CIA report of April 1982 entitled, "Soviet Acquisition of Western Technology." The study should divide the technology losses according to subject areas such as (a) scientific and technical exchanges; (b) student exchange programs; (c) sales of advanced technology equipment and know-how; and (d) illegal acquisitions of U.S. technology or equipment. The study will be useful in assessing the impact on national security of these losses and in enabling law enforcement officials to anticipate the emerging technologies likely to be targeted by future Soviet acquisition efforts. The study also could identify those countries whose export control policies, coupled with their relationship with the U.S.S.R., indicate that they may be potential channels for unauthorized re-export of controlled high technology items.

In addition, information from the study would be the foundation for creation of a automated data base which can be used to make accurate, up-to-date and consistent licensing decisions and recommendations.

One important use of this data base will be to enable the affected agencies such as the Commerce and Defense Departments to evaluate export license applications in light of each country's previous record on diversions. The Senate Banking, Housing and Urban Affairs Committee, which has jurisdiction over the Export Administration Act, may wish to review the statute in terms of the possible need to enlarge the role of the Defense Department in reviewing Free World applications.

LAW ENFORCEMENT

(5) There is a need for reassessment of the ability of the Department of Commerce to carry out its present enforcement responsibilities under the Export Administration Act (50 U.S.C. App. 2401 et seq.). Commerce presently carries primary law enforcement responsibility, with secondary jurisdiction resting in the U.S. Customs Service. Commerce maintains both licensing and enforcement under the act; by contrast, under the Arms Export Control Act (22 U.S.C. 2751 et seq.), those functions are handled separately by the Department of State and the U.S. Customs Service.

Hearing evidence and a detailed staff investigation of the problem revealed a lack of traditional law enforcement capabilities at the Department of Commerce, including shortages in manpower, equipment,

fundamental law enforcement training and experience. The evidence strongly suggests that the Commerce Department to date has been unable to enforce the EAA controls in the face of mounting Soviet efforts to secure sensitive American technology.

In light of the testimony received at the hearings, some members of the subcommittee are of the opinion that current enforcement responsibilities should be altered by delegation of full enforcement responsibility to the U.S. Customs Service, with the licensing function remaining at the Commerce Department. Other members of the subcommittee feel that that decision should be temporarily delayed until it can be determined whether the Department's proffered improvements will adequately correct present enforcement problems.

In any event, the subcommittee will continue its interest in the Commerce Department's enforcement operation under the Export Administration Act. Undoubtedly individual members of the subcommittee will introduce legislation as a result of these hearings, reflecting their own views on reforms needed to enforce export controls more effectively.

(6) The Export Administration Act and the Arms Export Control Act should be amended to include as a criminal offense, the possession or attempted possession of restricted goods with the intent to export such goods unlawfully.

Hearing evidence established the many difficulties law enforcement authorities encounter in the prosecution and investigation of export offenses. One problem lies in the absence of any offense until a suspect actually "exports" the goods in question. When arrest is delayed until the moment of export, law enforcement necessarily risks the loss of territorial jurisdiction if the subject departs the country. In export cases, where the offense is often non-extraditable, that risk can be fatal to the success of the case.

(7) The Commerce Department is authorized to deny export privileges to a company that has been convicted of violating the Export Administration Act. However, a company shown to be involved in espionage—indeed, a company shown to be a haven for Soviet Bloc spies—cannot be denied export privileges if the corporation or its officers were not convicted of violating the Export Administration Act. That is the interpretation of the law given the subcommittee by Lawrence J. Brady, the Assistant Secretary of Commerce for Trade Administration. Polanco, an Illinois firm owned in part by Poland, was found to have been the base of operations for a Polish spy network that bribed William Holden Bell, a Hughes Aircraft radar specialist. Bell turned over secret military documents to Polish agents. Brady testified that the Commerce Department has no authority to deny Polanco export privileges because a representative of the firm had violated the espionage statute, not the Export Administration Act. The act should be amended so that export privileges would be denied automatically to firms whose owners violated the espionage statute or any other law when the transgression was aimed at the illegal transfer of military or dual-use technology.

(8) The enforcement tools currently available to the U.S. Customs Service should be broadened. Consideration should be given to granting Customs officers express statutory authority for warrantless arrest and search and seizure in cases of outbound cargo and persons,

generally equivalent to that authority which Customs now possesses in cases of inbound cargoes and persons. Express statutory authority would enhance Customs' effectiveness in full enforcement of the export laws. This authority has been implied by the courts in some cases.

(9) The Federal electronic surveillance statutes should be amended to permit court-authorized surveillance where there is probable cause to believe that a violation of either the Export Administration Act or the Arms Export Control Act is being committed. As with the recommendations on Customs' authority, this revision would enhance law enforcement's ability to investigate complex export cases.

(10) Penalties for violation of the Arms Export Control Act should be increased to match those currently available under the Export Administration Act (for entities, a fine of \$1,000,000 or five times the value of the exports, whichever is greater; for persons, 10 years imprisonment or a \$250,000 fine, or both).

(11) The RICO statute (18 U.S.C. 1962 et seq.) should be amended to include, as predicate offenses in proving racketeering activity, violations of the Export Administration Act. Export violations often have been treated as "minor" offenses, resulting in minimal sentences and the inability to pursue extradition with foreign governments. Prosecution under RICO would expose offenders to a possible 20 year prison sentence and an increased likelihood of extradition.

(12) Volker Nast of Hamburg, Werner J. Bruchhausen of Dusseldorf and Dietmar Ulrichshofer of Vienna have in common the fact that each was indicted in the United States on charges that they conspired to ship militarily critical high technology to the Soviet Union. None of the men was prosecuted, however, because they remained in their native lands free from American justice. In Nast's case, he was indicted twice—in California in 1976, in Maryland in 1981—and, regarding Bruchhausen and Ulrichshofer, their alleged crimes constituted one of the most serious diversions ever perpetrated.

Bringing reported criminals like Nast, Bruchhausen and Ulrichshofer to justice is a difficult task. Most nations are very hesitant to allow extradition of their own citizens. West Germany, for example, has a constitutional prohibition against extradition of German nationals. Moreover, as European law experts have pointed out, criminal sanctions in the German export control system are exceptional, in view of the free trade orientation of German foreign economic relations legislation, and most infractions of it are punishable merely by administrative fines. Similarly, few nations treat export violations as serious offenses, as the United States does.

The subcommittee asked the Library of Congress to evaluate the problem raised by alleged violators like Volker Nast.^{*} The Library said:

It is a well-recognized principle in international law that a State refusing to extradite a criminal should punish him according to its municipal laws. This principle has been expressed in numerous international conventions dealing with the suppression of crimes, and these agreements frequently contain clauses obligating the member countries to make the reprehensible conduct punishable according to their own laws

^{*} The Library of Congress study, entitled "Problems of Enforcement of National Security Export Controls Involving Illegal Conduct Abroad," was prepared by Dr. Edith Palmer, Senior Legal Specialist in the European Law Division.

and to establish jurisdiction in their laws over offenders whose extradition is refused. Whereas these conventions deal with universal crimes for which there is a broad consensus that they need to be suppressed, this may not be the case with regard to U.S. export controls. *However, the protection of these controls might well constitute an obligation among the members of the North Atlantic Treaty to protect their mutual security by adopting laws to enforce these controls.* (Emphasis added.)

The subcommittee concurs with the Library of Congress in the suggestion that one solution to the high technology diversion problem can be found in unified action by the NATO Alliance. The U.S. and its NATO allies are working together to blunt the military threat posed by the Soviet Union and the Warsaw Pact nations. Yet all too often America's European allies seem not to comprehend the connection between their own security and the illegal export of militarily critical technology to the Soviet Union.

It is unlikely that Volker Nast, Werner Bruchhausen and other alleged export control violators living in Western Europe will ever be brought to justice in the United States. In most instances, extradition may be out of the question. But the governments of Western Europe must be made to understand that the issue of high technology diversions to the U.S.S.R. is not merely an American problem. It is a problem for the entire Western world.

In this regard, the subcommittee recommends that the American representatives to NATO take steps to inform more thoroughly the members of the Alliance on the nature of technology diversions and how they undermine the NATO effort. Within the context of NATO, the U.S. and the Allies can devise mutually agreeable procedures for dealing with Soviet surrogates like Volker Nast whose activities pose a threat to each member nation's national security but who, so far, have been immune from prosecution. It should be pointed out to the Allies, for example, that the Microwave Surveillance Receiver system Volker Nast tried to ship from the U.S. to the Soviet Bloc has military applications that can be used against all NATO members, not just the United States.

The U.S. Department of State should followup on the NATO initiatives. In consultation with the Department of Defense, Justice and Treasury, the State Department should meet with the Western Democracies, Japan and with other countries friendly to the West in an effort to negotiate agreements whereby procedures are established providing for prompt and effective prosecution of persons charged with serious export law violations regarding the shipment of militarily critical technology to the Soviet Union.

Testimony at the subcommittee hearings indicated that the Western European and Japanese governments make export policy without guidance from their own defense ministries. The U.S. Defense Department is encouraging these nations to include their own military officials in the writing of export policy and regulations. The Defense Department is to be commended for these efforts. It is an unwise course for any of America's Allies and friends to develop export policy without advice from their own defense ministries. By the same token, inconsistencies between our export policies and those of our

allies can hamper the ability of American businessmen to compete in the international marketplace. We must work with our Allies to develop effective export policies consistent with America's own efforts to promote exports on the one hand, yet control the transfer of sensitive technology on the other.

(13) The region in Santa Clara County, California, popularly known as the "Silicon Valley," the heart of America's growing microprocessor industry, is a prime target of Soviet efforts to transfer sensitive technology. Yet the subcommittee was told that a strong Federal law enforcement presence has been lacking in the Silicon Valley in the past. State enforcement efforts must be supplemented by a Federal interest in the problem. The subcommittee notes assurances from the FBI that it is aware of this problem and is taking steps to increase its presence in the Silicon Valley and other high technology centers. The Bureau is to be commended for its corrective action in this regard.

ROLE OF PRIVATE INDUSTRY

(14) The technology transfer problem is, by all indications, a massive one requiring the attention of both the government and the private sector. Law enforcement and industry spokesmen suggested that many high technology companies remain unaware of the extent of the problem. Reportedly, industry interaction with the Commerce Department is inadequate; unfamiliarity with the lists of controlled exports is common within the industry.

The FBI's DECA (Development of Counterintelligence Awareness) program, aimed at improving the level of communication with the private sector, directly educates companies involved in Defense contracts with the problem of technology transfer. The Defense Department has begun a similar program with the business community. There is a need for similar efforts by other government agencies vested with technology transfer controls to inform companies dealing in sensitive but non-classified technology of their responsibilities in this area.

(15) Private industry must contribute directly to any effort to halt the technology drain. There is a lack of sufficient security precautions at the sources of production in the technology industries. Lax security measures were cited in some Silicon Valley plants. William Bell, a Hughes Aircraft engineer convicted of selling military secrets to Polish spy Marian Zacharski, had access to sensitive information on the basis of a security clearance which had not been reviewed in 28 years. The private sector, through the efforts of individual enterprises and trade and professional associations, should be encouraged to maintain more effective security measures in plants producing sensitive high technology items. Massive Soviet efforts to obtain U.S. technological resources can be countered only through vigorous government and law enforcement efforts, bolstered by the strong support of America's high technology industries.

DEFENSE DEPARTMENT STUDY

(16) In its preliminary investigation, the subcommittee staff found that the Defense Department's role in the export control process has

been affected adversely by fragmentation of key functions and responsibilities. An effective national export control policy must balance the national security interests of DOD, the foreign policy interests of the Department of State and the economic considerations put forward by the Commerce Department. With three Cabinet-level agencies involved, achieving the necessary coordination and cooperation will never be an easy task, even under the best of circumstances. That is why it is essential that the Defense Department formulate a consistent and comprehensive policy, a policy that reflects the harmonious inner-working of the several affected DOD components. If, as the subcommittee staff asserted, there is uncertainty as to which office of DOD is authorized to manage export control questions, the Department cannot make adequate policy in this field; nor will its actions with regard to other government agencies be as effective as they should be. The Secretary of Defense should direct an examination of the Department's procedures and organization regarding technology transfer and export control, and define clearly, with no possibility of ambiguity, where primary responsibilities are to reside. The Secretary may wish to consider the possibility of creating a new office, at an appropriately senior level, whose sole function would be to provide oversight and direction in the Department's technology transfer programs. In his study, the Secretary should make certain that the office which has the function of reviewing export license cases has sufficient permanent resources. The license review process is a vital part of export control. If it is determined that the office needs additional resources, every effort should be made to obtain them. It is a false economy, indeed, to cut back on resources in a function whose work product is so important to the objective of reducing the Soviets' access to American technology.

In addition, the Secretary may want to consider the possible need for improved funding for the Department's research laboratories and facilities which carry out export control duties such as license applications and development of export control lists. A DOD spokesman told the subcommittee that this responsibility should be funded permanently and chartered. In his study, the Secretary also should ascertain that the Defense Department is carrying out effectively its responsibility to oversee government programs which involved visitations to the U.S. of Soviet and Soviet Bloc scientific and technical professionals and students.

FREEDOM OF INFORMATION

(17) The Freedom of Information Act should be amended to eliminate the application of the act to information requests made by foreign nationals. In light of the disclosure of sensitive information to foreign nationals, "cottage" disclosure industries, and others, such statutory revisions would inject a reasonable sense of national security considerations into disclosure practices mandated by the Freedom of Information Act.

In addition, FOIA should be amended by adding a new exemption; one that would exempt requests for technical information relating to items which would otherwise require a validated export license. Language to that effect was included in legislation, S. 1730, to amend FOIA that was voted out of the Senate Judiciary Committee on May 20, 1982.